

California Education and the Environment Initiative Science Standard 1.2.d.

California Education and the Environment Initiative

Approved by the California State Board of Education, 2010

The Education and the Environment Curriculum is a cooperative endeavor of the following entities:

California Environmental Protection Agency
California Natural Resources Agency
Office of the Secretary of Education
California State Board of Education
California Department of Education
California Integrated Waste Management Board

Key Leadership for the Education and Environment Initiative:

Linda Adams, Secretary, California Environmental Protection Agency
Patty Zwarts, Deputy Secretary for Policy and Legislation, California Environmental Protection Agency
Andrea Lewis, Assistant Secretary for Education and Quality Programs, California Environmental Protection Agency
Mark Leary, Executive Director, California Integrated Waste Management Board
Mindy Fox, Director, Office of Education and the Environment, California Integrated Waste Management Board

Key Partners:

Special thanks to **Heal the Bay,** sponsor of the EEI law, for their partnership and participation in reviewing portions of the EEI curriculum.

Valuable assistance with maps, photos, videos and design was provided by the **National Geographic Society** under a contract with the State of California.

Office of Education and the Environment

1001 | Street • Sacramento, California 95812 • (916) 341-6769

http://www.calepa.ca.gov/Education/EEI/

© Copyright 2010 by the State of California

All rights reserved.

This publication, or parts thereof, may not be used or reproduced without permission from the Office of Education and the Environment.

These materials may be reproduced by teachers for educational purposes.

California Connections

Life on Califorina's Channel Islands

Written by Jayne Henn and Lisa Tessaro-Love

Part 1 Wild Places and Faces	2
Part 2 Living on Santa Rosa Island	18
Part 3 Changing Places and Faces on the Islands	32

Part 1

Wild Places and Faces

Not far off the coast of California, there are eight small **islands**. They are called the Channel Islands.





All eight Channel Islands

There are many different habitats on and near the Channel Islands. There are grasslands, forests, canyons, rocky shores, sandy beaches, kelp forests, and the ocean.





Animals of all kinds live on the Channel Islands. There are frogs, salamanders, lizards, snakes, and insects living on the islands. Fish and other animals live in the waters around the islands.



Jack mackerel



Pacific treefrog



Gopher snake



Beetle

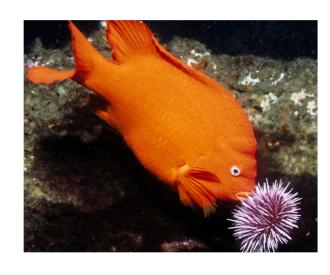


Island slender salamander



Swallowtail butterfly





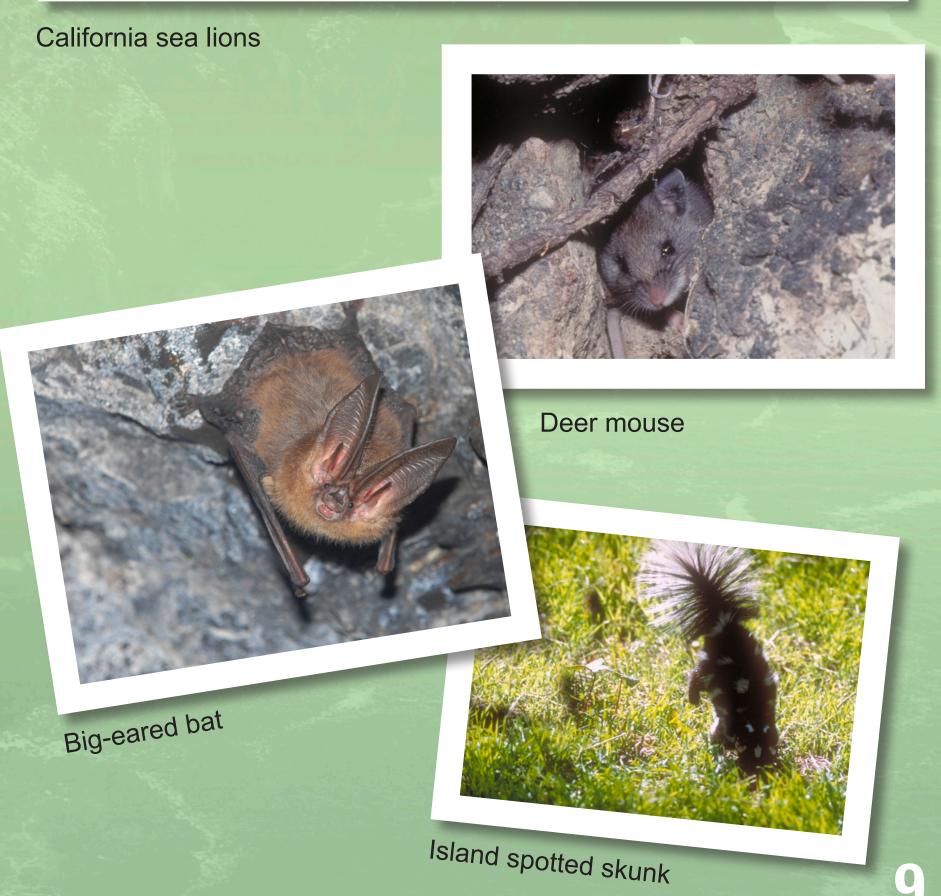
Garibaldi

Mammals also live on the Channel Islands. The mammals on the islands include sea lions, bats, island foxes, island deer mice, and island spotted skunks.



Island fox





There are also many different kinds of birds on the Channel Islands. Some nest on the

rocky shore.

Others nest in trees. Some even nest on the ground.



Dowitcher



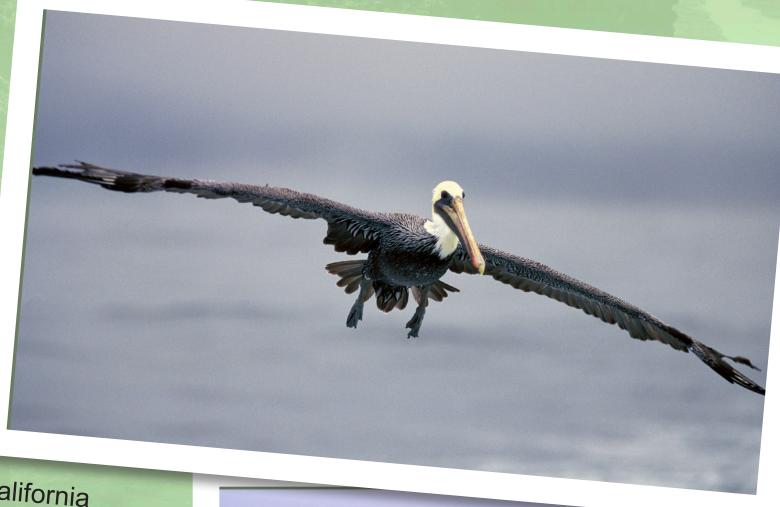
Black oystercatcher



Island scrub-jay



Bald eagle



California brown pelican



Western gull

The ocean around the islands is home to many animals other



Sea star

than fish. Animals like sea cucumbers, hermit crabs, sea urchins, and sea stars live under the water.



Crab



Sea urchin



Sea cucumber

12

Hermit crab

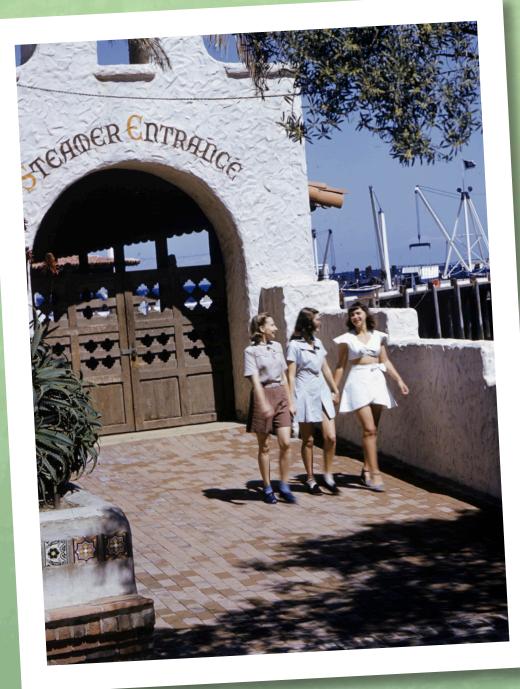


Sand crabs and clams live on the sandy beach. Whales, sea otters, and dolphins swim in the open water.

13

Santa Catalina Island is one of the Channel Islands. Many people live on Santa Catalina.

They live in a town called Avalon.







Avalon and harbor on Santa Catalina Island

Think about it.

What plants and animals live on or near the Channel Islands?

What do their habitats look like?

Words to know

Island: Land completely surrounded by water.

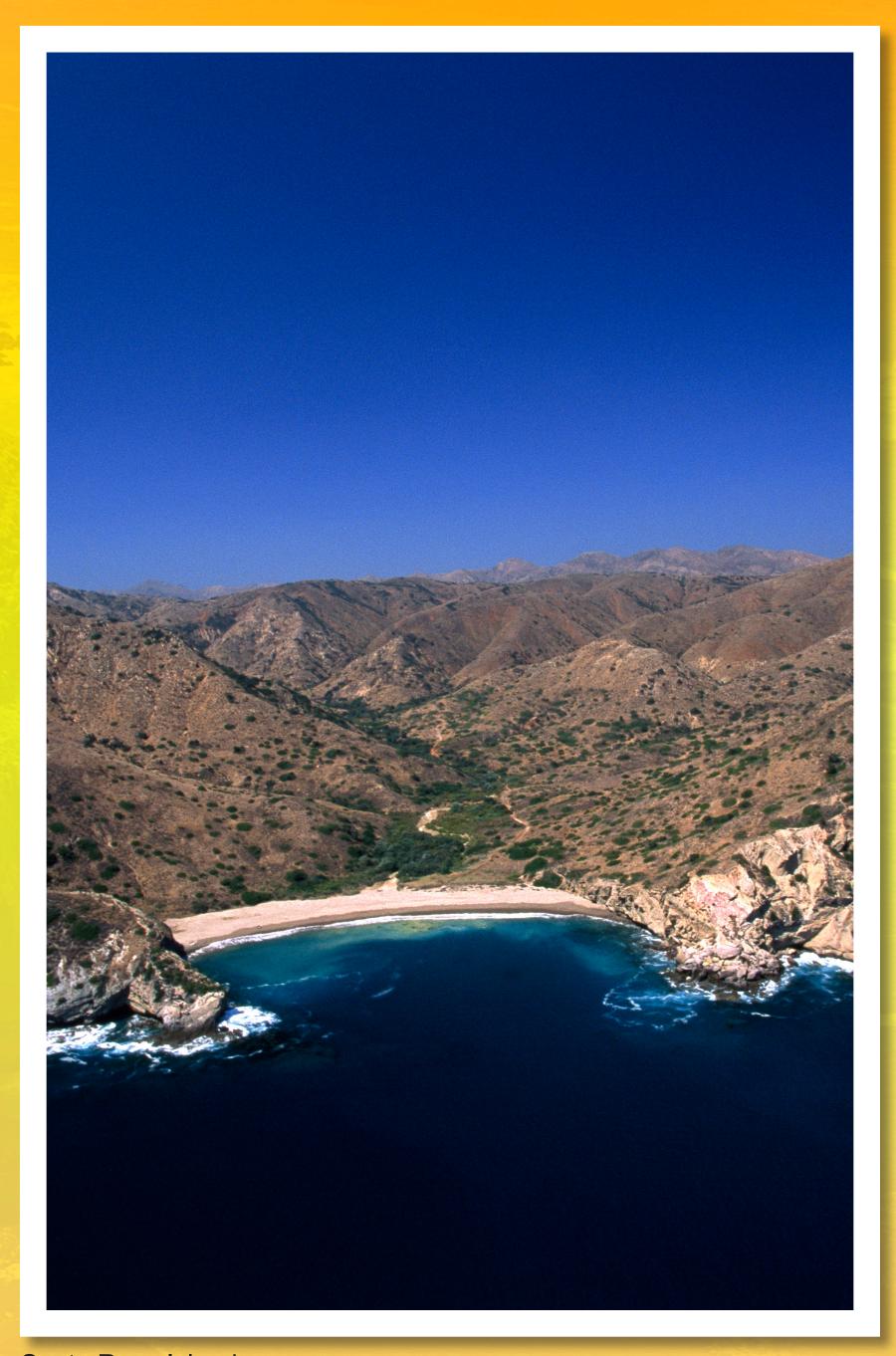
Habitat: The place where a living thing lives and meets its needs.

Grassland: Land covered by grasses and small plants but very few trees.

Part 2

Living on Santa Rosa Island

Santa Rosa Island is one of the Channel Islands. It has many of the habitats you have already seen, such as grasslands, canyons, and sandy beaches. It even has a small forest of pine trees. It is also home to many of the special animals you have already met.



Santa Rosa Island

A large part of Santa Rosa Island is grassland. The grasslands are made up of bunchgrasses and wildflowers. Island foxes,

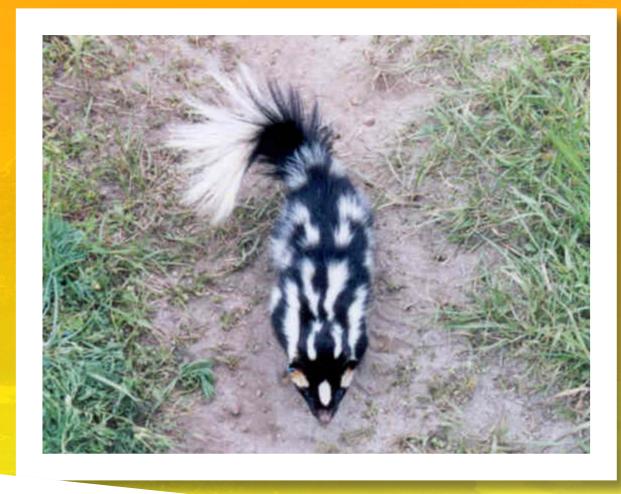
spotted skunks, and deer mice find food and shelter near the grasslands.



Island deer mouse







Island spotted skunk



Wildflowers

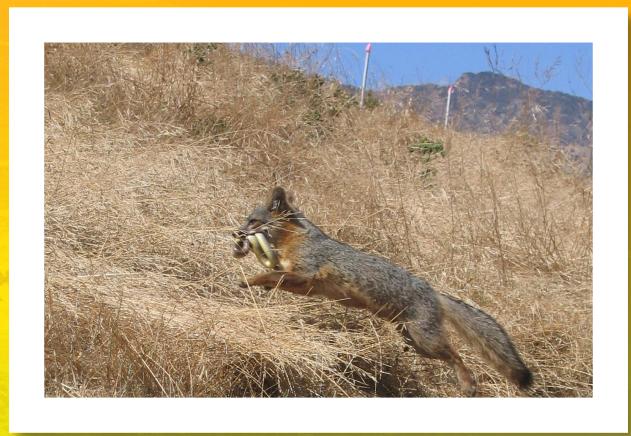


Bunchgrass

The island fox uses its small, sharp, cutting **teeth** to grab and crunch food like insects and mice. An island fox will even eat a snake! The fox tears meat with its long, pointed teeth that look like fangs.



Island fox teeth



Island fox with snake



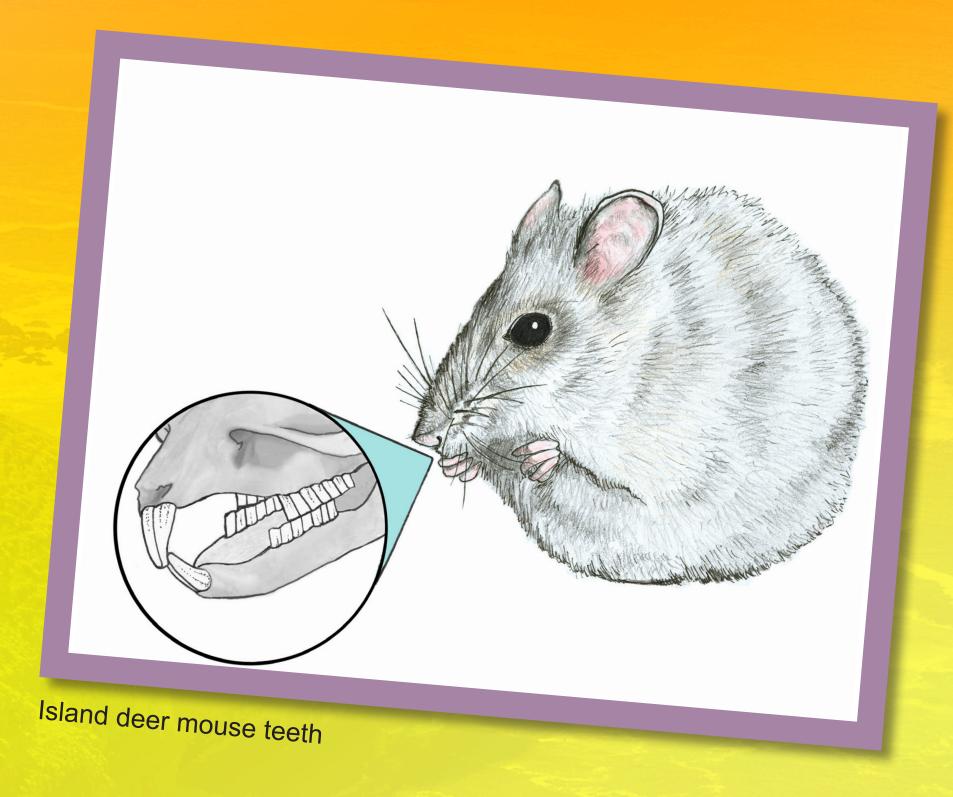
Gopher snake

Sometimes, the fox will take its food back to its den to eat.

The island spotted skunk eats plants and small animals like crickets and deer mice. Spotted skunks have sharp teeth and flat, grinding teeth to help them chew their food.



Island spotted skunk teeth

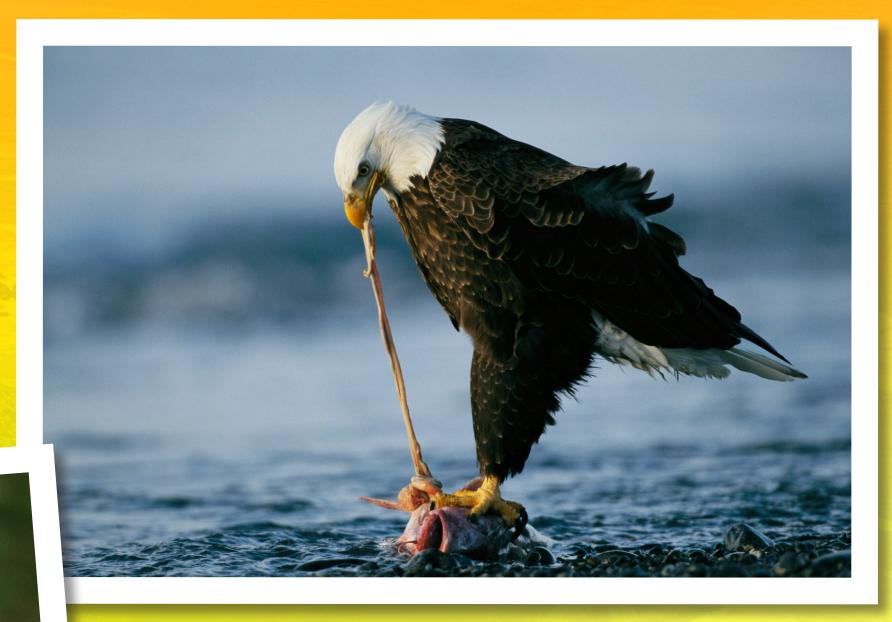


The island deer mouse uses its front cutting teeth to crack open seeds and nuts. It uses its flat back teeth to chew them. Since it does not eat meat, it does not have sharp, pointed teeth.

Birds do not have teeth. They have **beaks** instead. The bald eagles that live on Santa Rosa island use their **talons** to grab fish from the water.



Bald eagle landing on cliff



Bald eagle eating fish



They use their sharp beaks to tear the meat into small pieces. Instead of chewing, they swallow these small pieces whole. Bird beaks are made from the same material as your fingernails.

When people made changes to the islands, golden eagles wanted to move there. They flew all the way from the California mainland to live on Santa Rosa Island.

Like bald eagles, golden eagles also have talons and sharp beaks that help them catch and eat their **prey**, but they do not eat fish. Instead, they eat small mammals—like the island fox!





Think about it.

What do the animals that live on the Channel Islands eat?

What helps them catch and chew their food?

Words to know

Tooth: A hard, bony structure in an animal's mouth that helps it eat and defend itself.

Beak: The hard covering on the jaws of a bird.

Talon: The hooked, sharp claw on a bird, such as an eagle.

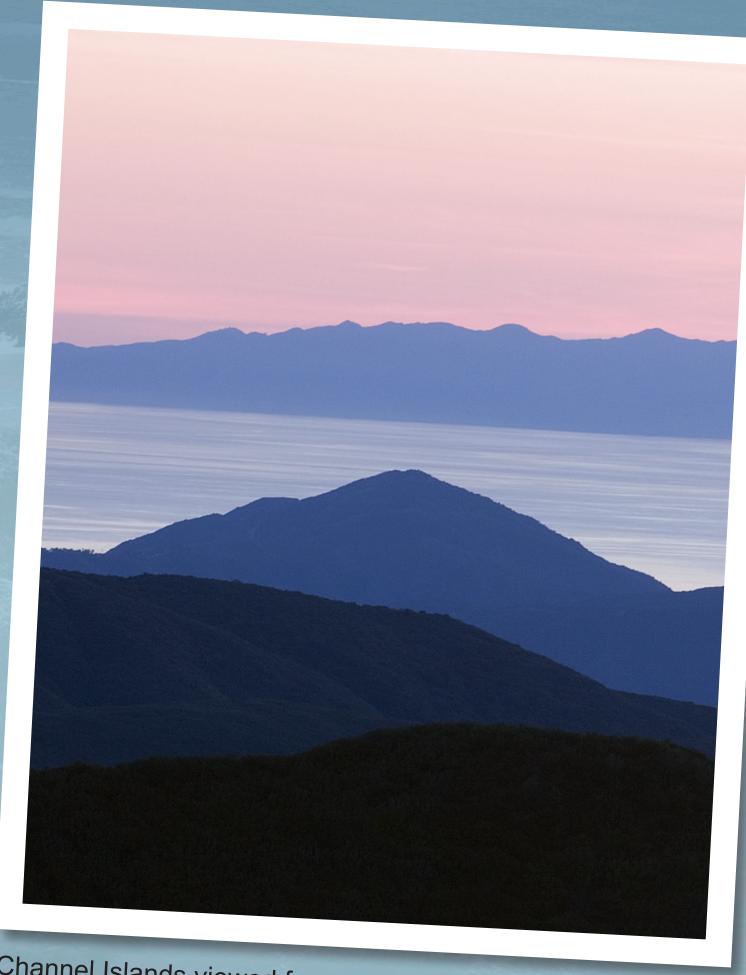
Prey: An animal that is hunted by another animal for food.

Part 3

Changing Places and Faces on the Islands

A long time ago, foxes came from the mainland of California to Santa Rosa Island.

Scientists think the foxes may have floated to the island on rafts made of plants. The rafts formed when there were floods



Channel Islands viewed from mainland

on the mainland. The floods washed plants—and foxes across the sea.

Some scientists believe that foxes may have come to the islands in the canoes of the Chumash Indians many years ago.

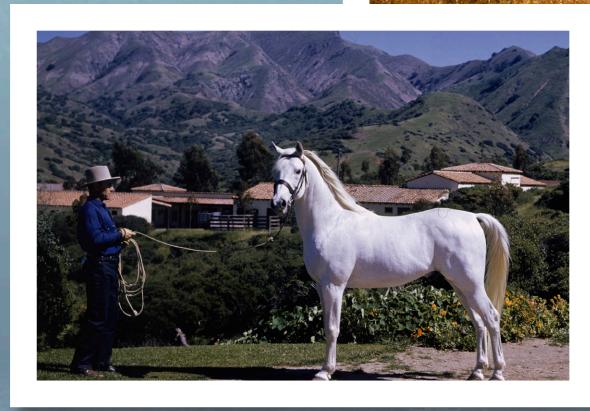
The foxes found plenty to eat in their new home. They feasted on fruit, mice, insects, and snakes. Island fox families grew. In time, there were many foxes living on the Channel Islands.



Many other people came from the mainland to the islands after the Chumash did. They saw land they could farm and

places to raise cows, sheep, pigs, and horses. They liked the islands so much they decided to stay. These people brought many other animals to the islands

that had never been there before, like dogs and cats.

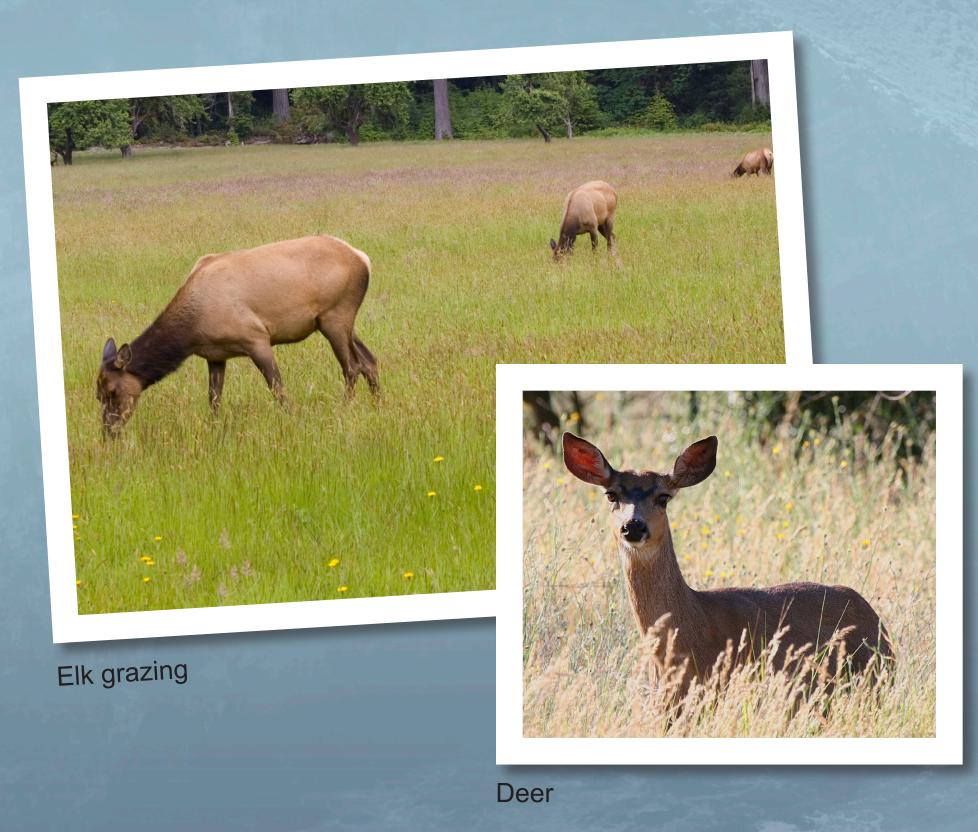


Horse rancher



Cattle ranch on Channel Islands

Later, people brought elk and deer to the islands. These animals use their sharp, cutting teeth and large, flat, grinding teeth to cut off and chew grass and other grassland plants.





Pigs use their snouts to dig up the soil so they can find roots and insects to eat. All of these animals ate, and ate, and ate. They ate so much that the grasslands and forests started to change.



Island fox

The foxes on the islands need the grasslands and forests. These areas are their homes. These are the places where they find shelter and the kinds of foods they need to eat. With all the changes that were happening, fox families were in danger.

At the same time the land was changing, the number of golden eagles on the islands was going up.

When the golden eagles soared over the island, they saw a meal—the island fox!



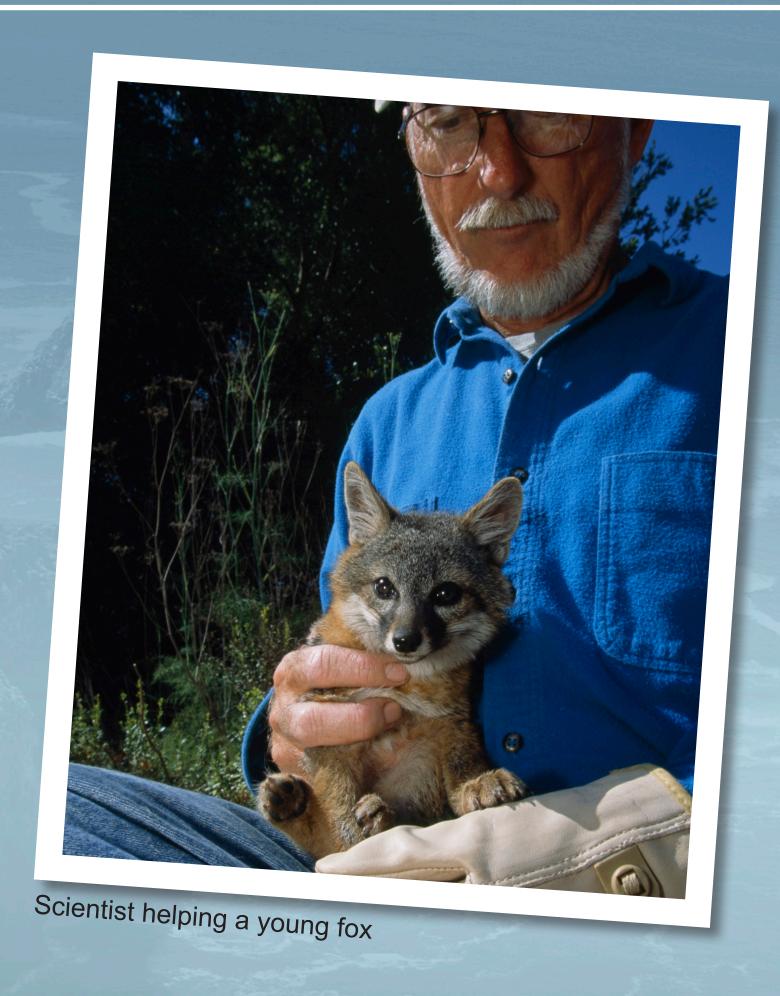
Once, there had been hundreds of island foxes living on the Channel Islands. After things began to change, there were only a few foxes left. Some people were worried.

They wanted to find a way to help the foxes.
They caught the golden eagles and took those



Island fox

predators back to the mainland of California.



They raised the young foxes in special places that were safe from the eagles. When the foxes were big enough, people let them go to live on the islands.

The island foxes still need places where they can find food and shelter. Five of the eight Channel Islands are now part of a national park. This means that animals like the island fox, island spotted skunk, island deer mouse, and the California brown pelican have safe places to live and grow.



Island fox



California brown pelican



Island spotted skunk



Deer mouse

Think about it.

What happened to the island fox when people brought other animals to the islands?

Words to know

Predator: An animal that hunts, kills, and eats other animals to survive.

Unit Title: Life on California's Channel Islands

Grade: 1

Science Standard 1.2.d.

Supports ELA Standard: Writing 1.1.2.

© Copyright 2010 By the State of California

All rights reserved.

This publication, or parts thereof, may not be used or reproduced without permission from the Office of Education and the Environment.

These materials may be reproduced by teachers for educational purposes.





California Education and the Environment Initiative

